Nuffield Department of Medicine

<table>
<thead>
<tr>
<th>Job title</th>
<th>Postdoctoral Research Scientist in HIV Vaccine Immunology</th>
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<tbody>
<tr>
<td>Division</td>
<td>Medical Sciences Division</td>
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<tr>
<td>Department</td>
<td>Nuffield Department of Medicine</td>
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<tr>
<td>Location</td>
<td>NDM Research Building, Old Road Campus, Headington, Oxford, OX3 7FZ</td>
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<tr>
<td>Grade and salary</td>
<td>Grade 7: £32,236 - £39,609 per annum</td>
</tr>
<tr>
<td>Hours</td>
<td>Full time</td>
</tr>
<tr>
<td>Contract type</td>
<td>Fixed term until 31st May 2021</td>
</tr>
<tr>
<td>Reporting to</td>
<td>Prof Persephone Borrow in conjunction with Professor (Emeritus) Sir Andrew McMichael</td>
</tr>
<tr>
<td>Vacancy reference</td>
<td>137182</td>
</tr>
<tr>
<td>Research topic</td>
<td>Identification of HLA-E restricted HIV-1 specific CD8 T cells</td>
</tr>
<tr>
<td>Project team</td>
<td>Borrow - McMichael</td>
</tr>
<tr>
<td>Funding partner</td>
<td>The funds supporting this research project are provided by BMGF</td>
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</tbody>
</table>

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford’s researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual’s unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe’s most entrepreneurial universities. Income from external research contracts in 2016/17 exceeded £564m and we rank first in the UK for
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university spin-outs, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information please visit www.ox.ac.uk/about/organisation

Medical Sciences

The Medical Sciences Division is an internationally recognized centre of excellence for biomedical and clinical research and teaching. We are the largest academic division in the University of Oxford

World-leading programmes, housed in state-of-the-art facilities, cover the full range of scientific endeavour from the molecule to the population. With our NHS partners we also foster the highest possible standards in patient care.

For more information please visit: www.medsci.ox.ac.uk

Nuffield Department of Clinical Medicine (NDM) …fostering your career in science

The Nuffield Department of Clinical Medicine (NDM) is one of the largest departments of the University of Oxford and is part of the Medical Sciences Division, with responsibility for a significant part of the teaching of clinical students within the Medical School.

NDM has significant financial turnover and complexity, resulting from its diverse research portfolio, its geographical spread and its close links with NHS funding and strategic teams involved in the development and delivery of increasingly integrated clinical research platforms. For more information please visit: http://www.ndm.ox.ac.uk/home

The Nuffield Department of Clinical Medicine has been presented with a Departmental Athena SWAN Silver award in recognition of the commitment made to promote gender equality through our organisational and cultural practices and our efforts to improve the working environment for both men and women. For more information please see our Departmental Athena SWAN pages: https://www.ndm.ox.ac.uk/working-for-ndm/aboutndmatheneswan/
The NDM Research Building and TDI

Situated on the Old Road Campus this new building represents the latest phase in continued development of the Medical Research Campus. This £22M new building allows the development of the Target Discovery Institute and expansion of existing research groups of NDM with research synergies. The building is 5,300 sq m (GIA) laboratory and office space housing some 160 research and support staff.

The NDM Research Building constructed for the Nuffield Department of Medicine includes the Target Discovery Institute (TDI) with many academic partners such as the Department of Cardiovascular Medicine and BHF Centre of Research Excellence (BHF Centre for Cardiovascular Target Discovery), Department of Radiation Oncology and Biology, Ludwig Cancer Institute, Kennedy Institute of Rheumatology, Structural Genomics Consortium and the Department of Chemistry.

TDI research facilities include high-throughput cell-based screening facility, cell-based assay development program, proteomics laboratory, medicinal chemistry and chemical biology programs and containment level three laboratories. There is support space for the scientists including a 90-seat seminar room, advanced IT and AV infrastructure and additional meeting rooms and break out spaces.

Job Description

Overview of the role

The post-holder will join a small team headed by Prof Persephone Borrow working on human T cell responses to HIV restricted by HLA-E. Work by our collaborators in the USA (Professor Louis Picker) has shown that a SIV vaccine vectored by cytomegalovirus stimulates MHC-E restricted SIV specific T cells that, after virus challenge, >50% of monkeys are able to clear acute SIV infection. Our group aims to find out whether there are CD8 T cells in the human T cell repertoire that can recognise HIV peptides presented with HLA-E, which could be stimulated by a vaccine. We have identified HIV peptides that bind to HLA-E and have generated HLA-E tetramers and HLA-E transduced cell lines that will be used to generate primary CD8 T cell responses from the blood of HIV negative donors. In parallel, we will expand HLA-E restricted T cells specific for mycobacterial antigens, which are known to exist in most adult blood donors. When we identify HLA-E restricted HIV specific T cell responses we will clone the T cells and then sequence their T cell receptors so that they can be stably transduced into appropriate cell lines for further study.

The post holder will report to Prof Persephone Borrow. In addition to his/her own research, the post holder will provide guidance to less experienced members of the research group, including research assistants, technicians, and PhD and project students.
Responsibilities/duties

- The main focus of the post will be on laboratory-based research, primarily the culture of HLA-E restricted T cells (using reagents generated in collaboration with others in the research group), and the cloning and analysis of their T cell receptors.

- The post holder will adapt existing and develop new scientific techniques and experimental protocols

- Test hypotheses and analyse scientific data from a variety of sources, review and refine working hypotheses as appropriate

- Contribute ideas developing this research project in new directions, as appropriate

- Undertake some administrative duties essential for the smooth running of the laboratory

- Regularly present detailed accounts of the research undertaken to laboratory colleagues and to senior researchers

- Collaborate in the preparation of scientific reports and journal articles and where appropriate will present papers and posters at scientific meetings.

- Use specialist scientific equipment in a laboratory environment

- Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques, and provide guidance to more junior staff and students as needed

- Represent the research group at external meetings/seminars, either with other members of the group or alone

- Carry out collaborative projects with colleagues in partner institutions, and research groups

Hazard-specific / Safety-critical duties:

This job includes the following hazards or safety-critical activities which will require successful pre-employment health screening through our Occupational Health Service before the successful candidate will be allowed to start work:

- Night working (11pm-6am)
- Lone Working
- Working with Ionising Radiation
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- Working with category 3b or 4 lasers
- Working with infectious pathogens (hazard group 2/3) – Hazard group 3 pathogens
- Working with blood, human products and human tissues
- Work with any substance which has any of the following pictograms on their MSDS:

Selection criteria

Essential

- Hold a relevant PhD/DPhil, and have relevant research experience
- Have experience in culture and cloning of T cells at containment level 2
- Experience in T cell assays including ELIspot assays and intra-cellular cytokine staining-based flow cytometry assays
- Experience in multiparameter flow cytometry and cell sorting
- Experience in transfection of cell lines
- Ability to manage own academic research and associated activities; good organisational skills
- Evidence of previous experience of contributing to publications/presentations
- Ability to contribute ideas for new research projects and research income generation
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings

Desirable Criteria

- Basic molecular biology techniques including PCR, cloning, sequencing
- Preparation and/or use of HLA tetramers or multimers
- Use of retrovirus expression systems
- Working in containment level 3 laboratory conditions
How to apply

Before submitting an application, you may find it helpful to read the ‘Tips on applying for a job at the University of Oxford’ document, at https://www.ox.ac.uk/about/jobs/research/

If you would like to apply, click on the Apply Now button on the ‘Job Details’ page and follow the on-screen instructions to register as a new user or log-in if you have applied previously. Please provide details of two referees and indicate whether we can contact them now.

You will also be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants).

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

All applications must be received by midday on the closing date stated in the online advertisement.

Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing departments.

If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from www.ox.ac.uk/about_the_university/jobs/support/. To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.

Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. Please check your spam/junk mail regularly to ensure that you receive all emails.
Important information for candidates

Pre-employment screening

Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University's pre-employment screening procedures, found at: www.ox.ac.uk/about/jobs/preemploymentscreening/.

Data Privacy

Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University’s Privacy Notice for Job Applicants at: www.admin.ox.ac.uk/councilsec/compliance/gdpr/privacynotices/job/. The University's Policy on Data Protection is available at: www.admin.ox.ac.uk/councilsec/compliance/gdpr/universitypolicyondataprotection/.

The University’s policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. From 1 October 2017, the University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at grade 8 and above. The justification for this is explained at: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/. For existing employees, any employment beyond the retirement age is subject to approval through the procedures: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/

From 1 October 2017, there is no normal or fixed age at which staff in posts at grades 1–7 have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equality of Opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.
### Benefits of working at the University

#### University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club provides social, sporting and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See [www.club.ox.ac.uk](http://www.club.ox.ac.uk) and [www.sport.ox.ac.uk/oxford-university-sports-facilities](http://www.sport.ox.ac.uk/oxford-university-sports-facilities).

#### Information for international staff

The University offers support and advice to international staff, including a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See [www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/](http://www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/).

#### Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation and local schools. See [www.welcome.ox.ac.uk](http://www.welcome.ox.ac.uk).

#### The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is an organisation run by volunteers that aims to assist the partners of new staff to settle into Oxford and to provide them with an opportunity to meet people in the area. See [www.newcomers.ox.ac.uk](http://www.newcomers.ox.ac.uk).

#### Childcare

The University has excellent childcare services with five University nurseries, as well as University-supported places at many other private nurseries. For full details including how to apply and the costs, see [www.admin.ox.ac.uk/childcare](http://www.admin.ox.ac.uk/childcare).

#### Family-friendly benefits

The University subscribes to My Family Care service through which staff are eligible to register for emergency back-up childcare and adultcare services, a 'speak to an expert' advice service and a wide range of guides and webinars through a website called the Work+Family space. See: [www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/](http://www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/).

#### Disabled staff

We are committed to supporting members of staff with disabilities or long-term health conditions. For further details, including information about how to make contact, in confidence, with the University’s Staff Disability Advisor, see [www.admin.ox.ac.uk/eop/disab/staff](http://www.admin.ox.ac.uk/eop/disab/staff).
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Staff networks

The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at www.admin.ox.ac.uk/eop/inpractice/networks/.

Additional benefits

Staff can enjoy a range of other benefits and discounts, including free entry to the Botanic Gardens and University colleges, and discounts at University museums. See www.admin.ox.ac.uk/personnel/staffinfo/benefits.